

REMARKS

This is in response to the outstanding Office Action dated September 29, 2006. Applicants reaffirm the election of the claims (15-18 and 23) of Group II, pertaining to the antimicrobial shingle. Applicants traverse the restriction due to the substantial overlapping of the subject matter. Applicants withdraw, without prejudice or disclaimer, the claims pertaining to Group I (1-14 and 19-22). The claims now pending in the application are claims 15-18 and 23. New claims 24-37 have been supplied to more clearly and particularly define the invention.

In the outstanding Office Action, claims 15-18 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ingram (US 3,084,059) in view of Kiik (US 6,585,813).

Independent claims 15 and 16 have been amended to include two structural limitations as follows: depositing a first portion of granules onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules, and dispensing a second portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules.

The Examiner asserts that Ingram reference teaches an asphalt covered felt material which has applied aggregate particles (Column 1, Lines 20+ of the Ingram reference). The size distribution of the particles is selected such that less aggregate is needed to cover the asphalt covered felt. The only particles that will be present in the upper layer of asphalt is the largest aggregates with the majority of the aggregate being encapsulated within the asphaltic composition. However, as noted by the Examiner, Ingram fails to teach a shingle having deposited anti-microorganism granules. Also noted by the Examiner, Ingram fails to teach a shingle having a deposited second portion of granules, the second portion including anti-microorganism granules, over the first portion of granules. There is simply no teaching or suggestion in Ingram of a manufactured roofing shingle having a deposited first portion of granules

onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules, and a dispensed second portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules, as claimed in Applicants' amended independent claims 15 and 16.

To overcome the deficiencies in Ingram, the Examiner relies on Kiik. The Examiner asserts that Kiik teaches surface covering asphaltic roofing shingles with anti-microbial copper or tin particles. The particles are applied such that they may enter part-way into the asphalt, but desirably remain on the surface so that they remain active.

However, the Kiik reference does not teach or suggest a manufactured roofing shingle as claimed in Applicants' amended independent claims 15 and 16. Specifically, Kiik teaches three different embodiments for manufacturing a surface covering building material containing components having long-term resistance to microbial growth-induced staining. In the first embodiment of Kiik, the surface covering building material includes a filled portion having one or more components having anti-microbial potential (Page 2, Paragraph 19). The components are added to and dispersed throughout the filler. In a second embodiment of Kiik, the one or more components having anti-microbial potential are applied to the surface of the said filled portion during the material making process by sprinkling or spraying the one or more components onto the surface (Page 4, Paragraph 31). After the components having the anti-microbial potential have been added to the surface, granules may then be added to the surface as is usually done with roofing materials (Page 4, Paragraph 35). In a third embodiment, Kiik teaches incorporating anti-microbial potential into the paint film used to cover the colored granules (Page 4, Paragraphs 36-37). However, in every embodiment of Kiik, there is simply no teaching or suggestion of a manufactured roofing shingle having a deposited first portion of granules onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules, and a dispensed second

portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules, as claimed in Applicants' amended independent claims 15 and 16.

Even combining the Ingram and Kiik references does not teach or disclose the invention as claimed in Applicants' independent claims 15 and 16. A combination of the Ingram and Kiik references teaches an asphalt covered felt material which has applied aggregate particles and has anti-microbial potential. The asphalt and aggregate covered felt material having anti-microbial potential is manufactured in three embodiments. In the first embodiment of Ingram and Kiik, the asphalt and aggregate covered felt material includes a filled portion having one or more components having anti-microbial potential. The components are added to and dispersed throughout the filler. In a second embodiment of Ingram and Kiik, one or more components having anti-microbial potential are applied to the surface of the filled portion of the asphalt and aggregate covered felt material by sprinkling or spraying the one or more components onto the surface. After the components having the anti-microbial potential have been added to the surface, granules may then be added to the surface. In the third embodiment of Ingram and Kiik, anti-microbial potential is incorporated into the paint film used to cover colored granules. However, in every embodiment of combination of Ingram and Kiik, there is simply no teaching or disclosure of a manufactured roofing shingle having a deposited first portion of granules onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules, and a dispensed second portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules, as claimed in Applicants' amended independent claims 15 and 16. In this regard, Applicants' independent claims 15 and 16 are non-obvious under 35 U.S.C. §103(a) in view of Ingram and Kiik. Therefore, the rejection of claims 15 and 16 are improper and the claims are patentable as amended.

Dependent claims 24-30 depend on amended claim 15 and for at least this reason, are also patentable.

Dependent claims 17-18 and 31-37 depend on amended claim 16 and for at least this reason, are also patentable.

Independent claim 23 has been amended to include structural limitations as follows: depositing a first portion of granules onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules and dispensing a second portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules. The anti-microorganism granules having a diameter within the range of from about 1.2 mm to about 1.7 mm.

The combination of the Ingram and Kiik references do not teach or disclose a manufactured roofing shingle according to Applicants' amended claim 23. Specifically, the combination of Ingram and Kiik does not teach a roofing shingle manufactured according to the steps of depositing a first portion of granules onto the asphalt coated sheet, wherein the first portion of granules contains substantially no anti-microorganism granules, and dispensing a second portion of granules over the first portion of granules, wherein the second portion of granules comprises granules and anti-microorganism granules. The anti-microorganism granules having a diameter within the range of from about 1.2 mm to about 1.7 mm. Rather, both Ingram and Kiik are silent concerning the diameter of anti-microorganism granules. In this regard, Applicants' independent claim 23 is non-obvious under 35 U.S.C. §103(a) in view of Ingram and Kiik. Therefore, the rejection of claim 23 is improper and the claims are patentable as amended.

In view of the above amendments and remarks, Applicants have shown that the claims are in proper form for allowance, and the invention, as defined in the claims, is not taught nor disclosed by the applied references.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections of record, and allowance of all claims.